

REMARKS

Claims 1-2 are pending in the application. Claim 1 is herein amended. No new matter has been presented.

Objection

The amendment filed June 9, 2010 is objected to under 35 U.S.C. 132(a) because it allegedly introduces new matter into the disclosure.

The Examiner alleged as follows:

35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the specification does not provide support for the limitation that the total length of the molten mass (see Fig. 1 of Applicant's specification) is equal to the "length of umbrella part of second resin". See 35 USC 112, first paragraph rejection of claims 1 and 2 made of record below.

Accordingly, " $Z \geq y$ " has been amended to – $Z > y$ –.

Rejections under 35 USC §112, First Paragraph

Claims 1 and 2 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The Examiner alleged as follows:

In regard to claim 1, the specification does not provide support for the limitation that the total length of the molten mass (see Fig. 1 of Applicant's specification) is equal to the "length of umbrella part of second resin". Since Fig. 1 shows that the "length of umbrella part of second resin" is less than the total length of the molten mass, the limitation that the total length of the molten mass (see Fig. 1 of Applicant's specification) is greater than the "length of umbrella part of second resin" is supported in Applicant's specification as originally filed. However, there does not appear to be a

disclosure in Applicant's specification as originally filed that the total length of the molten mass may be equal to the "length of umbrella part of second resin".

Claim 2 is rejected under 35 U.S.C. 112, first paragraph, because it depends upon claim 1.

This rejection is based on substantially the same recitation objected above. The amendments to claim 1 will also overcome this rejection.

Rejections under 35 USC §102(b)

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu et al. (U.S. Patent No. 4,816,308).

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Collette et al. (U.S. Patent No. 5,759,653).

Responding to Applicants' previous response, the Examiner alleged as follows:

All references cited in the rejections anticipate the claimed molten resin mass. See the text of all of the rejections of record. Applicant argues that the references do not teach molten resin masses because they teach preforms. However, preforms correspond to molten resin masses. Many of Applicant's arguments appear to relate to how the preforms are made and used, and do not appear to point out any structural differences that differentiate Applicant's claim language from any of the prior art references.

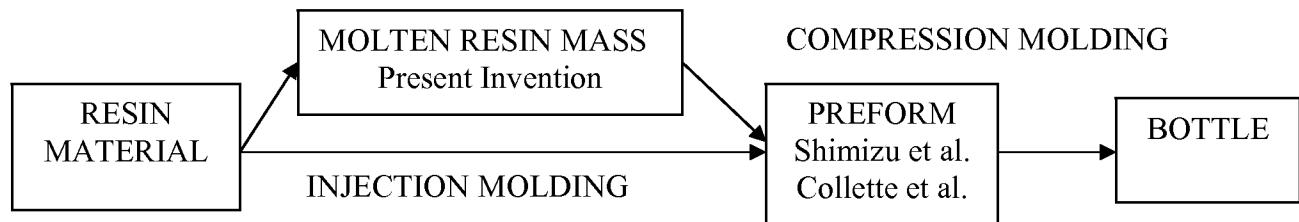
(Office Action, page 7 to 8, item 14).

Claim 1 has been further amended to recite " $(Z-y-t) > t$ " to distinguish Shimizu et al. and Collette et al. The recitation is supported in the original disclosure of Fig. 1.

Shimizu et al., Collette et al. and Kuwabara do not teach or suggest or provide any reason to make the multilayered molten resin mass as recited in amended claim 1.

Differences from Shimizu et al. and Collette et al.

First, it should be noted that the present invention is directed to a “molten resin mass” but not a preform. The Examiner alleged that performs correspond to molten resin masses, but the moten resin mass of the present invention is distinct from the preform obtained by compression molding of the molten resin mass in shape. Please see the following chart.



A “molten resin mass” of the present invention is an intermediate material which is to be formed into a “preform,” while Shimizu et al. and Collette et al. discuss the “preform” but not the “molten resin mass.”

The molten resin mass is typically obtained from a plurality of resin materials by extruding heat-melted resin through a die head, and the molten resin mass is not yet hard set but it is still soft. The molten resin mass is then formed into a preform by compression molding. The preform is formed into a bottle by blow molding.

The preform is usually directly formed from the resin material through injection molding. The present invention, however, is related to a process of manufacturing a preform with an intermediate resin layer. In the process, the preform is formed from a molten resin mass through compression molding. The process has advantages that the compression molding can be carried out under lower temperature and lower pressure, resulting in less deterioration of the resin compared to injection molding.

In order to obtain a bottle with an intermediate resin layer uniformly distributed between the outer layer and the inner layer, the intermediate resin layer is required in the preform to be precisely and uniformly positioned between the outer layer and the inner layer. The present inventors discovered that the distribution of the intermediate resin layer in the preform significantly depends on the shape of the intermediate resin in the molten resin mass. The present inventors also discovered the shape and the location of the intermediate resin in the molten resin mass of the present invention.

Re: Shimizu et al.

Shimizu et al. disclose a multilayered preform which is obtained by an injection molding process (see Shimizu et al., Figs. 1-4, column 3, lines 3-8). But these references discuss nothing about the molten resin mass. It would be technologically meaningless to compare the shape of the intermediate resin layer in a preform with the intermediate resin in a molten resin mass because the intermediate resin in a molten resin mass changes its shape in the stage of compression molding. Shimizu et al. teaches or suggest nothing about the molten resin mass of the present invention.

Re: Collette et al.

What Collette et al. disclose is also a multilayered preform which is obtained by an injection molding process. As is clear from Figs. 4 and 5, Collette et al. discloses a multilayered preform which is formed into U-shape while the present invention is a mass which is not yet formed. Collette discusses nothing about the molten resin mass.

Therefore, neither Shimizu et al. nor Collette et al. teaches or suggests the present invention as set forth in claim 1.

For at least these reasons, claim 1 patentably distinguishes over Shimizu et al. and Collette et al. Claim 2, depending from claim 1, also patentably distinguishes over Shimizu et al. and Collette et al. for at least the same reasons.

Claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by Kuwabara et al. (JP 03-234604) (English abstract filed with IDS).

Claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by Kuwabara et al. (JP 03-234604).

Although Kuwabara et al. discloses compression molding process of multilayered molten resin mass, it does not disclose how the intermediate resin should be controlled in order to obtain a bottle with an intermediate resin layer uniformly distributed between the outer layer and the inner layer. Kuwabara et al. does not teach or suggest relationship of sizes as recited in claim 1.

For at least these reasons, claim 1 patentably distinguishes over Kuwabara et al.

Rejections under 35 USC §103(a)

Claim 2 was rejected under 35 U.S.C. 103(a) as being obvious over Shimizu et al. (U.S. Patent No. 4,816,308).

Claim 2, depends from claim 1. As discussed above, claim 1 patentably distinguishes over Shimizu et al. Therefore, claim 2 also patentably distinguish over Shimizu et al. for at least the same reasons.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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